ATCC®
The Global Bioresource Center™

Your Discoveries Begin with Us.™

Search: --- Choose Op

Search

Before submitting an order you will be asked to read and accept the terms and conditions of ATCC's Material Transfer Agreement or, in certain cases, an MTA specified by the depositing institution.

Customers in Europe, Australia, Japan, Korea, New Zealand and Taiwan must contact a local distributor for pricing information and to place an order for ATCC cultures and products.

Cell Lines

ATCC Number:	CCL-240 Order this item	**Price:**	**$179.00**
Designation:	HL-60	**Depositors:**	RC Gallo
Biosafety Level:	1	**Shipped:**	frozen
Medium & Serum:	See Propagation	**Growth Properties:**	suspension
Organism:	*Homo sapiens* (human)	**Morphology:**	myeloblastic PHOTO

Tissue: peripheral blood; promyeloblast; promyeloblast; acute promyelocytic leukemia

Cellular Products: tumor necrosis factor (TNF), also known as tumor necrosis factor alpha (TNF-alpha, TNF alpha), after stimulation with phorbol myristic acid [23403]

Permits/Forms: In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location.

Related Cell Culture Products

Comments:	HL-60 is a promyelocytic cell line derived by S.J. Collins, et al. Peripheral blood leukocytes were obtained by leukopheresis from a 36-year-old Caucasian female with acute promyelocytic leukemia. [22902] HL-60 cells spontaneously differentiate and differentiation can be stimulated by butyrate, hypoxanthine, phorbol myristic acid (PMA, TPA), dimethylsulfoxide (DMSO, 1% to 1.5%), actinomycin D, and retinoic acid. [1229] The cells exhibit phagocytic activity and responsiveness to chemotactic stimuli. [1050] The line is positive for myc oncogene expression.
Receptors:	complement; Fc [1050]
Tumorigenic:	Yes, form colonies in semi-solid media and produce subcutaneous myeloid tumors in nude mice. [1050]

Oncogene:	myc +
Reverse Transcript:	negative
DNA Profile (STR):	Amelogenin: X CSF1PO: 13,14 D13S317: 8,11 D16S539: 11 D5S818: 12 D7S820: 11,12 TH01: 7,8 TPOX: 8,11 vWA: 16
Cytogenetic Analysis:	The stemline chromosome number is pseudodiploid with the 2S component occurring at 6.2%. Five markers (M2 through M6) were common to most S metaphases. DM's, which varied in numbers per cell, occurred in all metaphases karyotyped. HSR chromosomes were not detected.
Isoenzymes:	AK-1, 1; ES-D, 1; G6PD, B; GLO-I, 1; Me-2, 1; PGM1, 1; PGM3, 1
Age:	36 years
Gender:	female
Ethnicity:	Caucasian
Passage submitted to the ATCC:	8
Propagation:	**ATCC complete growth medium:** Iscove's modified Dulbecco's medium with 4 mM L-glutamine adjusted to contain 1.5 g/L sodium bicarbonate, 80%; fetal bovine serum, 20% **Temperature:** 37.0 C
Subculturing:	**Protocol:** Cultures can be maintained by the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 1 X 10 exp5 viable cells/ml. Maintain cell density between 1 X 10 exp5 and 1 X 10 exp6 viable cells/ml. Do not allow cell concentration to exceed 1 X 10 exp6 cells/ml. **Medium Renewal:** Every 2 to 3 days
Freeze Medium:	Complete growth medium supplemented with 5% (v/v) DMSO
Related Products:	Recommended medium (without the additional supplements or serum described under ATCC Medium) - ATCC 30-2005 recommended serum - ATCC 30-2020 purified DNA - ATCC CCL-240D purified RNA - ATCC CCL-240R
References:	1050: Gallagher R , et al. Characterization of the continuous, differentiating myeloid cell line (HL-60) from a patient with acute promyelocytic leukemia. Blood 54: 713-733, 1979. PubMed: 288488 1229: Collins SJ , et al. Terminal differentiation of human promyelocytic leukemia cells induced by dimethyl sulfoxide and other polar compounds. Proc. Natl. Acad. Sci. USA 75: 2458-2462, 1978. PubMed: 276884 22902: Collins SJ , et al. Continuous growth and differentiation of human myeloid leukaemic cells in suspension culture. Nature 270: 347-349, 1977. PubMed: 271272 23403: Aggarwal BB , et al. Human tumor necrosis factor. Production, purification, and characterization. J. Biol. Chem. 260: 2345-2354, 1985. PubMed: 3871770 32237: Nahm MH , et al. Identification of cross-reactive antibodies with low opsonophogocytic activity for Streptoccus pneumoniae. J. Infect. Dis. 176: 698-703, 1997. PubMed: 9291318 32253: Berninghausen O , Leippe M . Necrosis versus apoptosis as the mechanism of target cell death induced by Entamoeba histolytica. Infect. Immun. 65: 3615-3621, 1997. PubMed: 9284127 32256: Aparicio CL , et al. Correction for label leakage in fluorimetric assays of cell adhesion. BioTechniques 23: 1056-1060, 1997. PubMed: 9421636 32277: Mansat V , et al. The protein kinase C activators phorbol esters and phosphatidylserine inhibit neutral aphingomyelinase activation, ceramide generation, and apoptosis triggered by daunorubicin. Cancer Res. 57: 5300-5304, 1997. PubMed: 9393753 32286: Cuthbert JA , Lipsky PE . Regulation of proliferation and Ras localization in

transformed cells by products of mevalonate metabolism. Cancer Res. 57: 3498-3504, 1997. PubMed: 9270019
32290: Michael JM , et al. Resistance to radiation-induced apoptosis in Burkitt's lumphoma cells is associated with defective ceramide signaling. Cancer Res. 57: 3600-3605, 1997. PubMed: 9270034
32395: Clark RA , et al. Tenascin supports lymphocyte rolling. J. Cell Biol. 137: 755-765, 1997. PubMed: 9151679
32561: Tiffany HL , et al. Enhanced expression of the eosinophil-derived neurotoin ribonuclease (RNS2) gene requires interaction between the promoter and intron. J. Biol. Chem. 271: 12387-12393, 1996. PubMed: 8647842
32704: Chan YJ , et al. Synergistic interactions between overlapping binding sites for the serum response factor and ELK-1 proteins mediate both basal enhancement and phorbol ester responsiveness of primate cytomegalovirus. J. Virol. 70: 8590-8605, 1996. PubMed: 8970984
32777: Mao M , et al. RIG-E, a human homolog of the murine Ly-6 family, is induced by retinoic acid during the differentiation of acute promyelocytic leukemia cell. Proc. Natl. Acad. Sci. USA 93: 5910-5914, 1996. PubMed: 8650192
33019: Lepley RA , et al. Tyrosine kinase activity modulates catalysis and translocation of cellular 5-lipoxygenase. J. Biol. Chem. 271: 6179-6184, 1996. PubMed: 8626407
33167: Chen H , et al. Octamer binding factors and their coactivator can activate the murine PU.1 (spi-1) promoter. J. Biol. Chem. 271: 15743-15752, 1996. PubMed: 8663022

You may continue your ATCC Number search by typing in your search criteria below or returning to the ATCC Search Page. For more information please review the Search Help.

ccl-240 ATCC # Search Clear Search

Home Page Archive

Home Ordering Info Quick Order Support About ATCC Contact Us
Privacy Policy Terms of Use ATCC MTA